RECORD AND BRIEF

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In the Supreme Court of the United States

EXPRESSIONS HAIR DESIGN, *et al.*,
Petitioners,

v.

ERIC T. SCHNEIDERMAN, IN HIS OFFICIAL CAPACITY AS ATTORNEY GENERAL OF THE STATE OF NEW YORK, *et al.*,
Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Second Circuit

BRIEF OF SCHOLARS OF BEHAVIORAL ECONOMICS AS *AMICI CURIAE* IN SUPPORT OF PETITIONERS

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INTEREST OF *AMICI*[1]

Amici are eleven professors in the fields of economics, management, decision science, psychology, and public policy who engage in significant research and teaching on behavioral science and behavioral economics, and in particular on applications to consumer economic behavior. *See* Appendix (listing individual *amici*).

This brief addresses issues that are within *amici's* particular areas of scholarly expertise. In addition, in light of the Court's decision to consider this case, some *amici*—scholars at the Harvard Kennedy School and Harvard Business School—conducted a randomized, controlled experiment to study the relative impact of cash discounts and credit-card surcharges on consumer preferences. The results of that experiment are reported here.

Behavioral economics brings psychological insights to economic theories of human behavior to explain decision-making, particularly in markets. Behavioral economics has shown in many situations that consumer behavior systematically departs from that predicted by traditional economic theory, which tends to assume more purely rational, mathematical decision making and often fails to fully describe real-world behavior.

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[1] No counsel for any party has authored this brief in whole or in part, and no person other than *amici* or their counsel has made a monetary contribution to the preparation or submission of this brief. *See* Sup. Ct. R. 37.6. *Amici* advised counsel for all parties of their intent to file this brief around November 11, 2016, and the parties have consented to the filing of this brief. *See* Sup. Ct. R. 37.3.

Amici believe that this case—which concerns the significance of framing effects under the First Amendment—presents perhaps the first opportunity for this Court to consider the insights of behavioral-economic theory in reaching its decision. As relevant here, behavioral economics reveals that consumers' purchasing decisions are influenced significantly by the way in which price information is framed. The state no-surcharge laws at issue in this case limit the manner in which merchants communicate to their customers the costs of credit-card transactions, forcing merchants to frame those costs in a way that biases consumers toward credit-card use. *Amici* possess expertise on the effects of that framing.

SUMMARY OF ARGUMENT

Merchants pay fees on every credit-card transaction and find ways to pass the cost of these fees on to their customers. Under the "no-surcharge" laws of New York and several other states, however, merchants are permitted to charge different prices for customers paying with cash versus with credit cards, but are restricted in the way they describe the mathematical relationship between the two prices. They can provide "discounts" for cash purchases, but are criminally prohibited from setting "surcharges" on credit-card transactions. Thus a merchant could advertise a regular price of $100 and offer a $3 cash discount, but could not advertise a regular price of $97 with a $3 surcharge when paying with a credit card.

Under traditional economic theory, the market impact of a "cash discount" should be the same as the impact of a "credit-card surcharge." Credit-card customers pay more, and cash customers pay less,

regardless of the label attached. Traditional economic theory would thus predict that a cash-discount framing would induce consumers to pay with their credit cards at the same rate as an economically equivalent credit-card surcharge framing. After all, surcharges and cash discounts are just two ways of conveying identical information about the relationship between two prices.

But behavioral economics research shows that these two framings do not generate equivalent preferences. Instead, consumers' decisions can be materially influenced by the manner in which information is presented: a perceived reward garners a minor, positive reaction, while a perceived penalty produces a strong, negative reaction.

Recent research conducted by some of the leading scholars in this discipline—including immediate work by *amici* conducted specifically for inclusion in this brief—confirms what the theories suggest. When faced with a choice between using cash and credit, consumers are more likely to use cash to avoid credit-card surcharges than to earn cash discounts. As a result, no-surcharge laws limit how merchants communicate material information to customers.

ARGUMENT

I. Behavioral-economics research shows that framing a choice as either a prospective loss or gain materially influences people's decisions.

Behavioral economics is a relatively new field—about 35 years old—that stands at the intersection of traditional economics and other social sciences, especially psychology. Christine Jolls, Cass R. Sunstein, and Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 Stan. L. Rev. 1471 (1998). Traditional economics tends to assume that people make decisions based strictly on rational considerations, maximizing their self-interest. Richard H. Thaler, *Misbehaving: The Making of Behavioral Economics*, at 4-5 (2015). Behavioral economics challenges that notion by unearthing the ways in which rational decision-making is undermined or outright turned on its head by the cognitive limitations, biases, and mental shortcuts endemic to human decision-making. *Id.* at 5-6.[2]

The field was launched by the work of two psychologists, Daniel Kahneman—one of the *amici* represented here—and Amos Tversky. Their work on this topic earned Kahneman the Nobel Prize in

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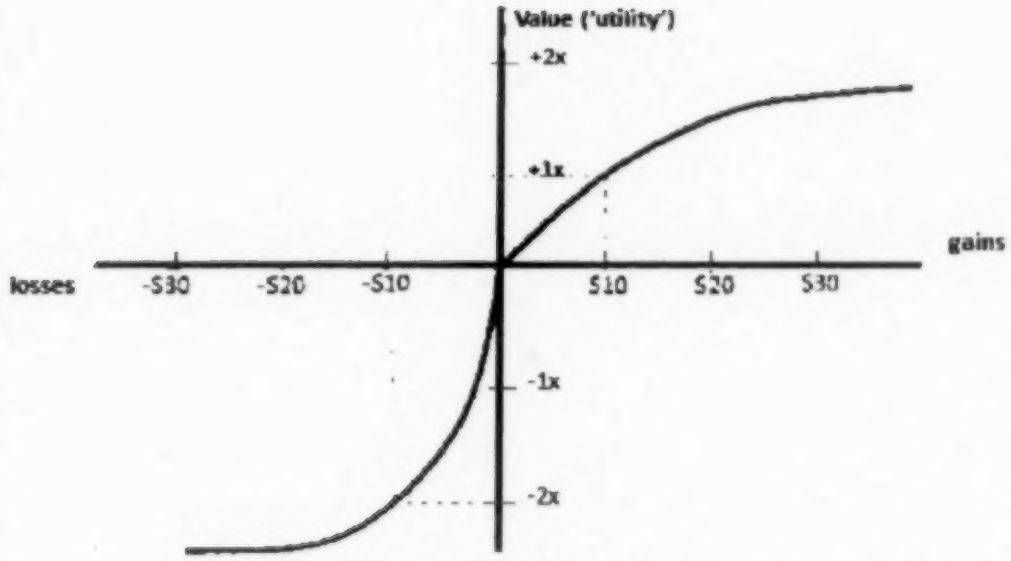
[2] In recent years, these findings have even migrated from the academy into mainstream consciousness and policymaking circles. Such works as Daniel Kahneman's *Thinking, Fast and Slow* (2011), Richard Thaler and Cass Sunstein's *Nudge: Improving Decisions About Health, Wealth, and Happiness* (2008), and Michael Lewis's *The Undoing Project: A Friendship That Changed Our Minds* (2016), have all helped to bring the key insights of behavioral economics into the popular imagination.

economics in 2002 and is the focus of the forthcoming popular-press book by Michael Lewis called "The Undoing Project." One key implication of their "prospect theory" is that people make different decisions depending on the way information is presented, even when the information presented is substantively identical. *See* Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, Econometrica 47(2), pp. 263-91, March 1979; *see also* Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, Science, Jan. 30, 1981, at 453-58.

Kahneman and Tversky's research, and many other studies since, show that people are loss averse; people will go to greater lengths to avoid a perceived loss than they will to obtain a perceived benefit, even if the loss and benefit are of otherwise objectively equal value. In economic terms, there is an asymmetry in anticipated value from comparable gains and losses.

To help visualize the theory, the graph below reflects a hypothetical reference point—circumstances as they exist before a choice is made—identified as the intersection between the x and y axes. The line then reflects the value a person perceives from an economic change in circumstances based on a given prospect or choice. The different steepness of the blue and red lines shows that humans are asymmetrically averse to losses. Here, a gain of $10 (on the horizontal axis) is anticipated to generate 1x in value/utility (on the vertical axis) while a loss of $10 (on the horizontal axis) is anticipated to generate 2x in displeasure/disutility (on the vertical axis).



While the foregoing is a theoretical example, research confirms that real-world choices are consistent with the theory; the prospect of loss looms larger than the prospect of comparable gain. For example, a recent field study revealed that teachers in a low-income school district generated more positive student outcomes when threatened with the loss of a *pre-paid* bonus if students performed poorly, as compared with teachers who were offered an economically identical, *end-of-year* bonus tied to student achievement. Roland G. Fryer, Jr., Steven D. Levitt, John List, Sally Sadoff, *Enhancing the Efficacy of Teacher Incentives Through Loss Aversion: A Field Experiment*, National Bureau of Economic Research Working Paper No. 18237 (July 2012).

In another study, researchers found that people are more likely to use their credit cards if they are told about the *losses* they will suffer if they choose a competing payment method, rather than if they are told about the *gains* they will experience by using their credit cards. Yoav Ganzach and Nili Karsahi, *Message Framing and Buying Behavior: A Field Experiment*, Journal of Business Research 32, 11-17 (1995).

A third field study subjected the putts of PGA golfers to the predictions of prospect theory. It found that when putting for par (i.e., the number of strokes it is expected to take to finish a particular hole), the golfers were more likely to make their putts than when putting for one under par (i.e., finishing the hole with one less stroke than expected). When putting for par, the golfer is trying to avoid a loss because a missed shot means losing one stroke relative to expectations. On the other hand, putting for one under par means the golfer is putting for a gain. The improved accuracy associated with putting for par, compared to putting for one under par, showed that the golfers were more motivated to avoid losses than experience gains. *See* Devin G. Pope and Maurice E. Schweitzer, *Is Tiger Woods loss averse? Persistent bias in the face of experience, competition, and high stakes*, The American Economic Review 101, no. 1 (2011): 129-157.

II. Consistent with the predictions of prospect theory, no-surcharge laws have a measurable impact on consumer preferences.

As behavioral-economics pioneer Richard Thaler predicted in 1980, framing a transactional cost as a credit-card "surcharge" rather than as a cash "discount" has a material impact on consumer behavior. When customers are offered a small discount for paying in cash, they are often willing to ignore it for the sake of convenience, treating the discount as a foregone opportunity. When consumers are asked to pay a premium on top of the perceived base price, however, they perceive it as an out-of-pocket cost. Richard Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. Econ. Behav. & Org. 39, 45 (1980). And, as Thaler explained, credit-card companies came to understand that nominal "surcharges" would accordingly "discourage customers from using credit cards." *Id.* at 45 n.6. As a consequence, the credit-card industry "turned its attention to form rather than substance" and began lobbying for laws requiring merchants to characterize price differentials as cash "discounts." *Id.*

Indeed, subsequent research supports that prediction. For example, a Dutch study confirmed that consumers have a strongly negative reaction to surcharges but not an especially positive reaction to cash discounts. E. Vis. & J. Toth, *The Abolition of the No-Discrimination Rule*, Report For European Commission Directorate General Competition 12 (2000), available at http://www.creditslips.org/files/netherlands-no-discrimination-rule-study.pdf. Seventy-four percent of the respondents in the Dutch study viewed

surcharges as "bad" or "very bad," but only 22 percent viewed cash discounts as "good" or "very good." *Id.*

In light of the Court's decision to consider this case, scholars at the Harvard Kennedy School and Harvard Business School—amongst the *amici* represented here—conducted a randomized, controlled experiment to study the relative impact of cash discounts and credit surcharges on consumer preferences.

The experiment involved randomly assigning 820 participants to one of two groups. Those assigned to each group read a scenario in which they had to choose between paying with cash or credit card. The scenarios differed in whether they framed the price differential as a cash discount or a credit-card surcharge. Since the groups were randomly assigned, they can be assumed to be nearly identical in their pre-existing preferences, behavior patterns, and beliefs. This allows the researchers to interpret differences between the two groups in their preferences for using cash or credit card as caused by the way the information was framed. Randomized experiments like this one are considered the "gold standard" method for determining the causal impact of a single variable (e.g., how a price differential is framed) on an outcome (e.g., expressed preference for credit card or cash).[3]

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[3] Participants were 49% female, and had a mean age of 34.5 years. The experiment was conducted between November 9th and November 11th, 2016, using a population of respondents recruited on Amazon's Mechanical Turk. The researchers pre-registered their analysis plan and the specific materials and format used in the experiment on a public website, https://osf.io/rc5mn/. The experiment data are also available there. This form of transparency and *ex ante* commitment to the experiment's hypothesis is an emerging best practice in scientific research.

Those assigned to the credit-card-surcharge group were presented with the following scenario:

> Imagine that you have a credit card and $220 in cash in your wallet/purse. You buy food at a convenience store.
>
> The salesperson says it costs $130 if you pay with cash (regular price). If you pay by credit card, there would be a surcharge (an additional fee) of around 3%. If you pay with a credit card, the total cost would be $133.90.
>
> Would you pay by credit card or pay with the $220 in your wallet/purse?

Those assigned to the cash discount group were presented with the following scenario:

> Imagine that you have a credit card and $220 in cash in your wallet/purse. You buy food at a convenience store.
>
> The salesperson says it costs $133.90 if you pay with credit card (regular price). If you pay with cash, there would be a discount (reduction in price) of around 3%. If you pay with cash, the total cost would be $130.00.
>
> Would you pay by credit card or pay with the $220 in your wallet/purse?

The results were strikingly consistent with prospect theory's predictions, and with the prior research discussed above. Of those assigned to the credit-card surcharge group, 11% chose to pay with credit card. Of those assigned to the cash discount group, 18% chose to pay with credit card. Put differently, describing the

price differential in terms of a credit-card surcharge reduced preferences to use a credit card by more than one-third relative to describing the price differential as a cash discount. This difference is strongly statistically significant; the probability that this difference arose due to chance is 1 in 200.

CONCLUSION

Prospect theory predicts that the way economic choices are framed has a material impact on consumer preferences. Related research and now, thanks to *amici*, a randomized, controlled experiment confirms what prospect theory predicts about the impact of framing the price differential between paying with cash or credit card as surcharges or cash discounts. Consumers are more likely to prefer paying with credit card when the price differential is framed as a cash discount rather than as an economically equivalent credit-card surcharge. No-surcharge laws thus limit merchants' ability to convey material information to their customers.

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APPENDIX

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